

DOCUMENT RESUME

ED 098 879

HE 006 060

AUTHOR Davis, Samuel; Henshaw, Stanley
TITLE Decision Analysis in Hospital Administration. A Tool
for Curriculum Revision.
INSTITUTION Association of University Programs in Hospital
Administration, Washington, D.C.
PUB DATE Apr 74
NOTE 30p.
AVAILABLE FROM Association of University Programs in Health
Administration, Suite 420, One Dupont Circle,
Washington, D.C. 20036 (\$2.00)

EDRS PRICE MF-\$0.75 HC-\$1.85 PLUS POSTAGE
DESCRIPTORS Administrative Personnel; *Curriculum Development;
*Decision Making; *Higher Education; Hospital
Personnel; *Hospitals; *Medical Education;
Questionnaires

ABSTRACT

The "prophet" system is perhaps the most prevalent form of curriculum development; that is, a department chairman or program director and a few trusted colleagues develop a course of study to satisfy their personal visions of the future. All too often research into the "real world" experience of hospital administration is not undertaken nor are alumni fully utilized in the total process of curriculum development. This monograph demonstrates one facet of another approach--the approach of a school using the valuable resources of its' alumni to assist in development of curriculum. Columbia University had a highly motivated alumni group who were encouraged by the school to investigate the role and function of hospital administration with the objective of curriculum change. This paper was designed to provide quantitative answers to questions concerning what hospital administrators do and what decisions affect them, their responsibilities and their activities. The answers to these questions formed a basis for curriculum development in hospital administration. The survey questionnaire is included in the appendix. (Author/PG)

BEST COPY AVAILABLE

AUPHA

HE

DECISION ANALYSIS IN HOSPITAL ADMINISTRATION

A TOOL FOR CURRICULUM REVISION

by:
Samuel Davis, M.S.
and
Stanley Henshaw, Ph.D.

U.S. DEPARTMENT OF HEALTH
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

April, 1974

Association of Universities Programs
in Health Administration
Suite 420
One Dupont Circle
Washington, D. C. 20036

\$2.00

HE 006060

AUPHA } PICK UP
LOGO

DECISION ANALYSIS IN HOSPITAL ADMINISTRATION

A TOOL FOR CURRICULUM REVISION

by:
Samuel Davis, M.S.
and
Stanley Henshaw, Ph.D.

April, 1974

*This publication is made possible by a grant from the Alumni Association of
The Graduate Program in Health Services Administration, School of Public Health,
Columbia University.*

INTRODUCTION

The prophet system is perhaps the most prevalent form of curriculum development; that is, a department chairman or program director and a few trusted colleagues develop a course of study to satisfy their personal visions of the future. All too often research into the "real world" experience of hospital administration is not undertaken nor are alumni fully utilized in the total process of curriculum development.

The following monograph demonstrates one facet of another approach--the approach of a school using the valuable resources of its' alumni to assist in development of curriculum. What occurred at Columbia was that a highly motivated alumni group was encouraged by the School to investigate the role and function of hospital administration with the objective of curriculum change.

Resultant from their work was a modest study, that while essentially exploratory in nature, did have a significant impact on change at Columbia. This study was carried out during a time when a new team had taken the helm at Columbia; a team that was looking for input not only to bring its curriculum "up to speed" but to develop an outstanding curriculum for the future. The Davis and Henshaw paper served as the "Green Discussion Paper" on numerous occasions, for example, it was considered at divisional and school faculty meetings, as well as two alumni conferences.

Resultant from these myriad discussions was the new Columbia Joint Dual Degree MPH/MBA program, a 3-year graduate program that is jointly sponsored by the School of Public Health and the Graduate School of Business. What contribution did the Davis and Henshaw paper have to this program? It is difficult to estimate--but, as a guess I would say, significant. This study identified areas of importance to hospital administration; areas in which students at Columbia were not adequately prepared. Conversely, the study identified areas in which students were probably overprepared. This identification then led to the introduction of new areas of study as well as the elimination of the anachronistic elements within the program.

Finally, this most recent curriculum experience has demonstrated both the value of alumni input as well as the need for a system that continually evaluates and updates a course of study.

SETH B. GOLDSMITH, Sc.D.
Director
Graduate Program in Health
Services Administration
Columbia University

DECISION ANALYSIS IN HOSPITAL ADMINISTRATION

A TOOL FOR CURRICULUM REVISION

Samuel Davis, M.S.*
Stanley Henshaw, Ph.D. **

What do hospital administrators do? Which activities demand most of their time? What decisions do they make? Where do their responsibilities lie and where do they think they should be?

This paper was designed to provide quantitative answers to these questions as a basis for curriculum development in hospital administration. Data generated by the project indicates the types of content problems faced by the hospital administrator, outlines the management functions in which they spend their time and the management process decisions they make. The research also analyzes the relative importance of the administrator's responsibilities to themselves and to their organization.

Of particular concern to the field are suggestions in the data that there is a significant disparity between the administrator's level of responsibility, in several program decision areas, and the importance of those areas to the institution. In other words, there appears to be a difference between the activities that are important to the hospital and the activities in which the administrator plays an important part.

The study suggests several dimensions of curriculum design that offer help in correcting these disparities by preparing administrators with necessary leadership, knowledge and skills in specific areas of hospital operations.

Project Development

The project began in 1969 when the Alumni Association of the Columbia University, Program in Hospital Administration developed a report in which specific recommendations for curriculum revision were made.¹ Following submission of the report to the faculty, the alumni established a working relationship with the School through the creation of a Joint Faculty Alumni Advisory Committee, established primarily to work on curriculum revision.

1/ Alumni Advisory Committee of the Program in Hospital Administration of The Columbia University School of Public Health and Administrative Medicine: A Call to Action, November, 1969.

- * Samuel Davis is Executive President of the Mount Sinai Hospital, Minneapolis, Minnesota and Adjunct Assistant Professor, Program in Hospital Administration, Columbia University.
- ** Stanley Henshaw, Ph.D. is Research Associate, Cornell University Medical College and holds his Ph.D. in Sociology.

This effort led to a data gathering project which would provide the faculty with basic information needed for curriculum revision.

In January 1972, a Joint Faculty Alumni research project was launched with the following objectives:

1. To provide valid information to the faculty to be used in curriculum revision in hospital administration and in health care administration.
2. To serve as prototype for similar information gathering and curriculum revision by other components of the School of Public Health.
3. To provide an effective and appropriate means of engaging the Alumni Association in the work of the School.
4. To serve as a pilot project which could lead to more substantial grant-supported research efforts concerning decision-making in hospital administration.

The survey instrument was developed by the authors. Cost of the research effort was borne by the Alumni Association of the School of Public Health, the School itself, and the Public Health and Administrative Medicine Educational Foundation, Inc. Principal investigator for the project was Samuel Davis and the research associate was Stanley Henshaw. The authors were supported by an advisory group composed of Alumni and various members of the faculty of the School of Public Health and the Graduate School of Business, Columbia University.

Discussion of the research problem by the project team made it clear that analysis of the work of hospital administrators required focussing on (a) the program content of hospital administration itself, and (b) the management process by which issues are clarified and decisions made.

Study Methodology

In May 1972, questionnaires were sent to 572 graduates of the School of Public Health and Administrative Medicine for whom addresses were available. This list was neither up-to-date nor restricted to hospital administrators. 277 responses were received. A second questionnaire was sent to those who did not respond within three weeks. In total, 292 satisfactory responses were received. From these, 161 useable questionnaires from hospital administrators were tabulated and analyzed.

Half the respondents were chief administrative officers of their hospitals. An additional 27 percent held second-level administrative responsibility. Eighty percent described their positions in line responsibility rather than staff assignments. More than half of the 161 respondents had graduated 15 years before or earlier. Forty-four percent of their institutions have more than 400 beds; they have operating budgets in the \$1.5 - to \$12 million range; more than two-thirds are urban institutions.

Analysis of the Hospital Administrator's Job

Traditional job descriptions are an inadequate tool to describe the administrator's job, since they are usually either too specific to have general relevance or too general to have any relevance at all. Two principle methods of analyzing the administrator's job were used:

1. Measuring the importance and time spent in the hospital environment of those management functions that are common concerns in the management of any type of organization.
2. Measuring the importance and time spent on various aspects of program content decisions; that is, administrators' activities which are peculiar to the health care industry and the hospital.

Management Functions

To create a profile of the management process as applied to administrators, a list of 10 management functions was presented in the questionnaire. ^{2/} Administrators were asked to rank them in order, according to their impression of the time spent in each function.

TABLE 1

Rank order of management functions with respect to the time spent in each function.

Rank by time spent	Management Function
1	Planning
2	Coordinating
3	Evaluating
4	Supervising
5	Representing
6	Developing a constituency
7	Investigating
8	Educating
9	Staffing
10	Negotiating

Note the low ranking of Negotiating, an activity that normally requires a large portion of management time. This should be particularly true of hospital administrators who, as will be shown below, spend a great deal of time in Financing (expenditures), activities requiring much negotiation in most organizations.

^{2/} The authors wish to acknowledge the very substantial assistance provided by Prof. Thomas A. Mahoney of the University of Minnesota Industrial Relations Center. Professor Mahoney graciously permitted the authors' use of a system developed by him and his colleagues for the identification of eight functional dimensions of management, described in a paper titled "The Jobs of Management" published in: Industrial Relations; Vol. 4, pp. 97-110, February 1965.

Developing a constituency ranks half-way down the list. As indicated below, these administrators feel that their primary influence in decision-making derives from their control over the organizational processes, rather than from formally granted authority. Informal organizational control requires a wide and highly supportive constituency. Perhaps the administrators' influence in decision-making would be more effective if more time were spent in development of a constituency throughout the organization.

Program Content

Content refers to the administrative activities that relate directly and exclusively to the hospital context and the health care industry. Traditional job descriptions are likely to be too subjective and too poorly defined to be readily quantifiable. The authors, therefore, developed a survey technique,^{3/} based on decision analysis. They followed the theory that administrative decisions in health care administration can be described in a specific, objective activity -- those that can be readily identified by subject matter and impact. Respondents were asked to examine a list of 15 administrative areas and to rank them in order according to time spent in making decisions in each area. Results are shown in Table 2.

TABLE 2

Rank order of administrative decision area with respect to time spent in making decisions in each area.

Rank by time spent	Decision Area
1	Financing (expenditures)
2	Medical staff relations
3	Administration, Professional departments
4	Health Care delivery
5	Physical plant, equipment, construction
6	Administration, service departments
7	Community relations
8	Financing (income)
9	Outside agencies, governmental & voluntary
10	Quality control and evaluation
11	Governing body
12	Education programs
13	Legal aspects and litigation
14	Shared services
15	Research programs

Since Health care delivery is a primary purpose of a hospital, it is somewhat unexpected to see this important aspect of program content ranking as low as fourth in time spent.

^{3/} In designing the study, the authors drew on an earlier study by G. Herman, S. Leroy and T. McCarthy, "The Impact of Graduate Programs in Hospital Administration," Hospital Administration, 7:2, p. 41, Spring, 1962.

Effectiveness of the Hospital Administrator

Having identified the management functions of the administrator and the aspects of program content in which they spend most time, it is important to determine how well they contribute to the hospital's principal purposes in their own view. One way of measuring this is to compare the time they spend in each area with their impression of the importance of that area to the hospital. To collect this data, the questionnaire asked respondents to rank their management functions and their program content decisions by importance to the hospital. Results are shown in Table 3 and Table 4.

TABLE 3

Time spent in management functions compared with importance of functions to institutions.

Management Function	Importance to Institution	Time Spent
Planning	1	1
Coordinating	2	2
Evaluating	3	3
Representing	4½	5
Supervising	4½	4
Investigating	6	7
Developing a constituency	7	6
Negotiating	9	10
Staffing	9	9
Educating	10	8

TABLE 4

Program Content Area	Importance to Hospital	Time Spent
Financing (expenditures)	1	1
Medical staff relations	2	2
Physical plant, equipment, construction	5½	5
Health care delivery	5½	4
Administration, professional departments	5	5
Financing (income)	7	3
Community relations	8	7
Outside agencies, governmental and voluntary	9	9
Quality control and evaluation	10	10
Governing body	11	11
Legal aspects and litigation	12	13
Education programs	13	12
Shared services	14	14
Research programs	15	15

Both Table 3 and 4 indicate an extremely high correlation between the amount of time the administrator spends in various activities and the importance of those activities to their hospital. The administrator seems to be making, or is asked to make, a conscious effort to make the effective use of their training and talent.^{4/} It may be that both IMPORTANCE TO HOSPITAL and TIME SPENT reflect the squeaky wheel effect -- that they consider most important to the hospital and that they tend to put more time on those areas that seem to be the most troublesome.

It is interesting to note in Table 4 that just as Health Care Delivery was ranked in fourth place in TIME SPENT, it is tied for third place in IMPORTANCE TO INSTITUTION. In neither case did the administrators place it first, although a large portion of society would call health care delivery the first objective of our hospitals, with all other aspects of operation being simply supportive objectives. That respondents rated Health Care Delivery equal to Physical Plant indicates either that they have lost sight of the objectives society assigns the hospital, or that they feel their decisions are not very important in determining the hospital's policies and practices in health care delivery, or that they are denied or have not taken the responsibility for influencing health care delivery.

This observation raises vital questions which relate to the administrator's total performance: How do the administrator's decisions impact hospital operations? How much leadership are administrators able to exert toward the accomplishment of hospital purposes?

The Administrator's Responsibilities

The goals of the administrator and the influence wielded are important ingredients of success and satisfaction; quality of performance in any job depends not only on the duties and abilities of the incumbent, but also on how he perceives his role and how he is viewed by those with whom he works. Managers probably perform with greater incentive and greater efficiency when their goals reflect the organization's goals and when their responsibilities are closely aligned with their goals and their assignments.

The array of the administrator's responsibilities conditions the way the administrator is seen. The way administrators use those responsibilities determines the way they will be able to contribute to the level that society and the health care industry require. Furthermore, hospital administrators, as professionals, are responsible for more than what is assigned to them -- they are obliged to maintain and raise the standards of their profession and the prestige of those who practice it.

For these reasons, the administrator's perception of his responsibilities compared with his sense of the importance of those responsibilities is significant to leadership education for administrators.

^{4/} An alternate interpretation may be the reverse; that is, the administrator tends to perceive as most important those activities in which they spend the most time. However, the questionnaire was designed so that respondents had to rank TIME SPENT and IMPORTANCE separately.

Respondents were asked to rank program content areas and management functions according to importance in their hierarchy of responsibilities. Table 5 shows how LEVEL OF RESPONSIBILITY compares with IMPORTANCE TO INSTITUTION in each decision area.

TABLE 5

Level of responsibility in 15 program content areas as compared with importance of decisions to the Institution.

Decision Area	Importance to Institution	Level of Responsibility
Financing (expenditures)	1	3
Medical Staff relations	2	5
Physical plant, equipment, construction	3½	4
Health care delivery	3½	7½
Administration, professional departments	5	2
Administration, service departments	6	1
Financing (income)	7	10
Community relations	8	9
Outside agencies, governmental and voluntary	9	6
Quality control and evaluation	10	7½
Governing body	11	14
Legal aspects and litigation	12	13
Education programs	13	11
Shared services	14	12
Research programs	15	15

The significant observation of Table 5 is that there is a very low correlation between IMPORTANCE TO INSTITUTION and LEVEL OF RESPONSIBILITY as compared with the correlation between IMPORTANCE TO INSTITUTION and TIME SPENT (Table 4). Comparing IMPORTANCE TO INSTITUTION and TIME SPENT, the rank correlation coefficient is 0.98. But the correlation coefficient between IMPORTANCE TO INSTITUTION and LEVEL OF RESPONSIBILITY is only .81. Furthermore, it may be noted that the correlation is much lower in the important decision areas than among the less important items. Decision areas rated 11 -- 15 in importance are highly correlated and tend to highlight differences among the more significant decision areas.

The high correlation between IMPORTANCE TO INSTITUTION and TIME SPENT indicates that administrators seem to be trying to do their jobs as they are expected to do them. Low correlation between IMPORTANCE TO INSTITUTION and LEVEL OF RESPONSIBILITY is probable evidence that administrators are understating their own role, or that they are viewed as having lesser responsibility by their colleagues in the health care industry -- particularly by those from whom administrators derive their authority. Junior status does not seem to be a logical explanation of these data, since more than half of the respondents were chief administrative officers and 27% held second level responsibility.

The data suggests that the administrator's professional capabilities are not being used to their fullest potential, that they are not making the total contribution of which they are capable. For example, administrators identified their first responsibility as Administration, service departments. Yet they rank their decisions in this area as only sixth in importance to their hospitals. Again, Administration, professional departments is placed second on their ranking of responsibilities, but it is in fifth place in importance to the hospital.

Administrators' relationship to hospital objectives is indicated by their ranking of health and medical care decisions. They reported the second most important area as being decisions they make with regard to Medical staff relations -- yet this activity ranks as fifth in their levels of responsibility. Health care delivery, as noted, does not rank at the top -- it is tied for third place in IMPORTANCE TO INSTITUTION -- but it falls to a position tied for seventh place in the RESPONSIBILITY ranking.

Fourth place ranking for Health care delivery in IMPORTANCE and seventh place in RESPONSIBILITY seems particularly unfortunate in light of the character of the hospitals in the survey and the people they serve. Two-thirds of the institutions, as mentioned earlier, are in urban settings and half of them have constituencies with substantial portions of black and Spanish-speaking patients. Thus, many of the people served by these hospitals are the nation's poor and unenfranchised. The accelerating trend in public policy to regard health care as a right places increasing emphasis on developing health care delivery programs that serve this group along with the rest of the population.

And, indeed, administrators are not inactive in this area. Despite the fact that Health care delivery ranks fourth in TIME SPENT, it led all other areas in which administrators reported they had undertaken special projects. Thus, while administrators do some work in this important area, the level of responsibility they feel they have here is much lower.

In the dimension of management functions, the correlation between IMPORTANCE TO INSTITUTION and LEVEL OF RESPONSIBILITY is even lower (Table 6)

Table 6

Level of responsibility in management functions as compared with importance of functions to institutions.

Management function	Importance to Institution	Level of Responsibility
Planning	1	6
Coordinating	2	1
Evaluating	3	2½
Representing	4½	5
Supervising	4½	*
Investigating	6	4
Developing a constituency	7	*
Negotiating	8	7
Staffing	9	2½
Educating	10	

* Not asked

In the realm of management functions, the rank correlation coefficient between IMPORTANCE TO INSTITUTIONS and TIME SPENT is again very high -- 0.94. But the correlation between IMPORTANCE TO INSTITUTION and LEVEL OF RESPONSIBILITY is very low, with a coefficient of only 0.15. Notable examples of the disparity are Planning, which administrators rank first in IMPORTANCE, but next to last in RESPONSIBILITY. Conversely, administrators ranked their responsibility for Staffing very high, however they ranked this function as one of minor importance to the hospital -- ninth in a list of 10.

The Nature of the Job

As we construct a profile of the graduate of the Columbia University Program in Hospital Administration on the basis of the survey data, a picture emerges of executives who must feel very keenly the limitations imposed on them either by themselves or by the organization.

Obviously, they are applying their energies in the activities they perceive or are asked to perceive as most important to the institution. But in many cases they have or take little responsibility in areas of the greatest significance. Thus, on the one hand, they may be thought of by their colleagues in the hospital as concerned only with tangential details and support activities of secondary importance. And they may very well feel handcuffed by the low level of authority they have in those matters they believe to be of primary importance.

In light of these considerations, building the prestige and the leadership needed for effective executive performance must be of concern to the field of health care administration.

This is not to say that administrators do not influence important decisions. It is clear, however, that their influence is derived principally from informal control of the workings of the organization rather than from a formal vesting of authority. Administrators appear to draw a sharp distinction between the grasp of executive power through manipulation of management processes on the one hand, and official recognition of responsibility on the other. One question in the survey displayed this difference sharply, as shown in Table 7.

TABLE 7

Question: Which gives you more influence on the important decisions in your institution, your formal authority or your control over the organizational processes resulting in the decisions?

Formal decision making authority	20%
Control over organizational processes	76
Both equally	<u>4</u> 100%

Administrators were further asked which specific methods of control over management processes were most effective in influencing decisions. The most important method cited was "influencing what is perceived to be a 'problem,'" used by 84% of the respondents. "Controlling the procedure

by which a decision is made (e.g., by deciding who should be involved in a particular decision)" is a control method used by 80%. "Influencing the flow of information to individuals and groups" was cited by 69%. Another 16% said they use "Information gathering" as an influencing device. And 7% use "control over physical resources to create alliances, gain support."

The administrators may see themselves as somewhat powerless to make or influence decisions in the program content area on the strength of their own authority. Instead they rely principally on their ability to informally control the management processes within the organization. For this reason, it appears that strong personal support in the organization is the most reliable source of executive power. It is unexpected, therefore, to find that Developing a constituency is rated by administrators as low as seventh in IMPORTANCE TO INSTITUTION and sixth in TIME SPENT (Table 3). The data indicates that administrators should place more emphasis on this vital activity.

The low correlation between the administrator's chief responsibilities and the hospital's major goals suggests an environment that is not conducive to operational effectiveness. That the administrator's influence seems to depend on informal manipulation of the decision-making process rather than on authority, suggests an opportunity for leadership. Leadership in any organization requires recognition of the need for a match of responsibilities to objectives. When this match is missing in the hospital, the institution may realize the full potential of the administrator's capability.

Another danger, most subjective but just as real, is the possibility that minimal authority or misplaced responsibility will demotivate the administrator. These are the dangers in underevaluating a man's capacity to handle responsibility. One of the most respected of writers on the management scene, Peter F. Drucker, put it this way:

The young, knowledgeable worker whose job is too small to challenge and test his abilities either leaves or declines rapidly into premature middle-age, soured, cynical, unproductive. Executives everywhere complain that many young men with fire in their bellies turn so soon into burned-out sticks. They have only themselves to blame: They quenched the fire by making the young man's job too small.^{2/}

Data from the survey indicates that the organizational climate of the hospital may impose on the administrator the kind of limitations Drucker warns against. At least it appears that the administrator runs a chance of being locked into the routine work in areas where others will take the decisive actions and make the important decisions. Nothing could more effectively dampen his initiative over the years or blunt his creative edge.

^{2/} Peter F. Drucker, *The Effective Executive*, Harper & Row, 1955, Page 84.

Implications for Curriculum Design

Curricula designed for the preparation of administrators should place emphasis on the activities in the mainstream of health care delivery. Our survey data indicates the need for a course of study and an approach that will better prepare graduates to exert leadership to achieve hospital and health care objectives.

One goal for any program of curriculum revision in hospital administration is the recognition that the gap between what one is responsible for and what one does, derives not only from the organization's expectations of the administrator, but from his own sense of responsibility. If the administrator feels responsible for the quality of care in his institution and for the efficient production and delivery of health care services, and if these concerns are held in light regard by the institution, it is the administrator's personal and professional responsibility to exercise leadership in those directions.

The data in this study shows several means of influencing the organization apart from formal authority. There are obviously others.

A classic definition of authority^{6/} "is the right to give orders and exact obedience." Today not even the church or the military can exact obedience, let alone a hospital administrator. The administrator has to learn to know his responsibility, and the techniques by which he can meet it without always having clearly defined authority.

The survey data indicates a clear need for graduate education to emphasize the social and professional responsibilities of administrators. Professional value systems must be developed during graduate education in hospital administration, if administrators are going to be able to lead their respective constituencies to achieve the primary objectives of hospitals and health care organizations, the delivery of accessible, high quality health services.

Administrators responding to the questionnaire indicated their awareness of this point. Asked to rank program content areas by IMPORTANCE TO BE TAUGHT, respondents listed Medical staff relations as the most important subject. Second most important was Health care delivery. Both these items ranked toward the top in IMPORTANCE TO INSTITUTION but fell toward the middle of the ranking in LEVEL OF RESPONSIBILITY (Table 5). It is apparent that respondents felt the need for greater emphasis in these areas.

Third and fourth items of IMPORTANCE TO BE TAUGHT were Financing (expenditures and Financing (income), indicating the continuing importance of finance in the administrator's job. The fact that, of the hospitals represented in the survey, 44% have more than 400 beds and their model budget level is in the \$10- to \$20-million range carries a clear indication of the need for heavy emphasis on financial planning, financial systems, electronic data processing, operating, capital and manpower budgeting and, in general, the systems approach to financial management. One reason financial education was considered so important by respondents may be that these new techniques of financial projection were unavailable to them when they were in school and they have been required to learn them, if learned at all, subsequent to their graduate education.

^{6/} Fayol, Henri, "General and Industrial Management", Chapter IV, pages 19-22, published by Sir Isaac Pitman & Sons, Ltd., London, 1948.

It is interesting to note that in fifth place in IMPORTANCE TO BE TAUGHT, the respondents listed Working with governing body, although this item was ranked next to last in administrators' LEVEL OF RESPONSIBILITY. This would indicate that administrators sense there is an opportunity to be of greater influence with the governing body than their level of responsibility now permits. (Governing body was ranked next to last in LEVEL OF RESPONSIBILITY. See Table 5.) Training in Business Administration and management technology would enable administrators to work more effectively with governing boards and would make administrative influence more significant at this level.

Although Administration, service departments was ranked first in LEVEL OF RESPONSIBILITY (Table 5), this decision area was ranked near the bottom (eleventh place out of 15) in IMPORTANCE TO BE TAUGHT. Again, this suggests that respondents are sensitive of a disparity between their levels of responsibility and the important issues of hospital administration.

A program content area that ranked high in IMPORTANCE TO INSTITUTION was Physical plant, equipment construction, which was tied for third place. Under IMPORTANCE TO BE TAUGHT, however, this decision area was ranked in 15th place, very near the bottom of the priority list. The authors believe this reflects the respondents' high concern with this decision area along with the feeling that much of the detail involved in this area must be learned on the job.

In the area of management functions, the most important item to be taught was Planning. This item they also ranked first in IMPORTANCE TO INSTITUTION, whereas it was listed well toward the bottom under LEVEL OF RESPONSIBILITY. Here again, administrators appear to feel the need for educational background that will enable them to bring their responsibilities into better alignment with the hospital's major objectives.

Since 76% of the respondents felt that their influence over decisions was gained by control over management functions rather than direct authority (Table 7), heavy emphasis in curriculum design should be placed on the processes of management. Techniques to be stressed would be: decision-making and management of the flow of information through the decision-making process.

While most of the respondents indicated primary responsibilities for operations, a substantial number had either "only planning" responsibilities or "planning and operations" responsibilities. On this basis, it appears that educational programs must continue to emphasize both aspects of the administrator's position.

Fifty-four percent of the respondents held a chief administrator's position, with the balance in a subordinate level. Curriculum design should recognize that while most students are training for the chief executive position, they must first pass through subordinate phases of career development. A balance must be struck between the development of the potential executive's conceptual skills and the technical skills needed to prepare the graduate to undertake early career assignments with narrowly defined responsibilities.

The high level of mobility noted for respondents -- both within organizations and between organizations -- indicates that effort ought to be made to incorporate in the curriculum material on career planning, re-orientation, and the sociology of contemporary America's mobile society.

Conclusion

One of the objectives of this research project has been "To serve as a pilot project which could lead to more substantial grant-supported research efforts concerning decision-making in hospital administration." This project has demonstrated at the least, that more research needs to be done, but there are clearly demonstrated areas for curriculum revision. There is a gap apparent between the responsibilities of the administrator and the objective and principle areas of decision making of the institution. If we are to develop hospital administration to the level at which administrators can perform better and lead in the field, we will have to equip them with the leadership skills and knowledge that will win the respect and confidence of their constituencies. It is apparent that this is one of the most critical needs in health care management today.

Theodore Jorenson, in a study of decision making by President John Kennedy, says^{7/} "What is clear is that a President's authority is not as great as his responsibility." The equation between the President of the United States and the hospital administrator however immodest, points up the need to lead when formal authority can't or won't do. Clearly there is a personal and professional responsibility which transcends formal delegation of authority. That sense of responsibility should be shaped and developed in the graduate schools of hospital administration.

^{7/} Theodore J. Jorenson, Decision-Making in the White House, Columbia University Press, 1961.

BIBLIOGRAPHY
DECISION ANALYSIS IN HOSPITAL ADMINISTRATION -
A TOOL FOR CURRICULUM REVISION

MONOGRAPH:

Graduate Program in Hospital Administration
 University of Chicago, Alumni Evaluation
 Andersen, R.; Neuhauser, D.; Kravits, Joanna

BOOK REVIEW:

Morell, R.W.: Managerial Decision-making. Hospital Administration, 6: 4, p. 57, fall 1961.

ARTICLES:

- Wilson, R.N.: The Crucible of Choice: Hospital Decision-making and the Primary Group. Hospital Administration, 4: 4, p. 6, fall 1959.
- Bennett, C.L.: Defining the Manager's Job: The AMA Manual of Position Descriptions. Hospital Administration, 4: 4, p. 57, fall 1959.
- Traxler, Jr., R.N.: The Qualities of an Administrator. Hospital Administration, 6: 4, p. 57, fall 1961.
- Hartman, G.; Levey, S.; McCarthy, T.: The Impact of Graduate Programs in Hospital Administration. Hospital Administration, 7: 2, p. 41, spring 1962.
- Underwood, W.O.: A Hospital Director's Administrative Profile. Hospital Administration, 8: 4, p. 6, fall 1963.
- Litman, T.J.: The Miller Analogies Test and the Graduate Hospital Administration: An Evaluation Study. Hospital Administration, 8: 4, p. 40, fall 1963.
- Traxler, Jr., R.N.: The Administrator's Dilemma -- The Need for Conceptual Skills. Hospital Administration, 9: 1, p. 6, winter 1964.
- Barnett, E.D.; Heiser, R.B.: Characteristics of Some Students in University Programs of Hospital Administration. Hospital Administration, 9: 1, p. 16, winter 1964.
- Johnson, E.A.: The Effective Hospital Administrator. Hospital Administration, 9: 2, p. 6, spring 1964.
- Shaffer, R.O.: A Measuring Stick for the Administrator. Hospital Administration, 9: 2, p. 28, spring 1964.
- Young, S.: Organizational Decision-making. Hospital Administration, 10: 4, p. 32, fall 1965.
- Jennor, E.J.; Huttis, J.C.: How Administrators Spend Their Day. Hospitals, 41: p. 47, Feb. 16, 1967.
- Young, J.P.: A Conceptual Framework for Hospital Administrative Decision Systems. Health Services Research, 3: 2, 79-95, summer 1968.
- Grinspoon, L.: Psychosocial Constraints on the Important Decision-maker. Amer. J. Psychiat., 125: 8, Feb. 1969.
- Darham, R.C. & Baysmore, E.J.: Analytical Administrative Decision-Making. Southern Hospitals, 37: 22-23, March 1969.
- Spillane, E.J.: The A-nat-o-my of a Decision. Hospital Progress, 40, 474, April 1969.
- Hollain, J.: On a Rule for Group Decision-making. Medical Care, 7: 4, 406-410, Sept.-Oct. 1969.
- Hall, J. & Williams, M.S.: Group Dynamics Training and Improved Decision-Making. The J. of Applied Behavioral Science, 6: 59-68, Jan.-Mar. 1970.

- Bennett, A.C.: A Pattern for Decision-making. Hospital Topics, 43: 52-56, May 1970.
- Ragan, C.A.: Why Hospital Decision-makers Look Haggard. Medical Times, 93: 7, 190-191, July 1970.
- Jones, C. H.: At Last: Real Computer Power for Decision-Makers. Harvard Business Review, 48: 5, p. 75, Sept.-Oct. 1970.
- Lowling, W.L.: The Application of Linear Programming to Decision-Making in Hospitals, Research in Hospital Management. Hospital Administration, 16: 3, p. 66, summer 1971.
- Alumni Advisory Committee of the Program in Hospital Administration of the Columbia University School of Public Health and Administrative Medicine: A Call to Action, November 1969.
- Mahoney, T. A.: "The Jobs of Management." Industrial Relations, Vol. 4, pp. 97-110, Feb. 1965.
- Drucker, P.F.: The Effective Executive. Harper & Row, p. 84, 1966.

ASSOCIATION OF THE ALUMNI
AND THE
GRADUATE PROGRAM IN HOSPITAL ADMINISTRATION
COLUMBIA UNIVERSITY
SCHOOL OF PUBLIC HEALTH

DECISION ANALYSIS IN HEALTH CARE ADMINISTRATION

S. Davis, M.S., Project Director

S. Henshaw, Ph.D., Research Sociologist

Face Sheet

NOTE: Upon our receipt of the returned questionnaire, this face sheet of identifying information will be separated from the questionnaire in order to assure the anonymity and confidentiality of responses.

Name _____

Location(s) of administrative residency _____

Present employment: _____

Job title _____

Name and location of organization _____

Responsibilities _____

If you are not currently employed in any area of health care administration but have been so employed, please complete the questionnaire in reference to your most recent position as a health care administrator. Give the information about this position (job title, employer, responsibilities, and date of termination of employment) on the bottom of this page.

If you have never been employed in health care administration, please fill out only this page and return it and the uncompleted questionnaire.

Questionnaire

DECISION ANALYSIS IN HEALTH CARE ADMINISTRATION

Instructions: For each multiple choice question, please circle the number corresponding to the one most appropriate response. Disregard the numbers in parentheses in the far right column, which are for data processing purposes only.

1. Background

- (a) Year of birth _____
- (b) Year of graduation from the Columbia Program in Hospital Administration _____
- (c) Other post-graduate degrees _____

2. Characteristics of present position (or most recent position as a health care administrator)

- (a) Length of time employed by the organization:
- | | |
|---|---|
| Less than two months | 1 |
| Two months to one year | 2 |
| More than one year but less than five years | 3 |
| Five years or more | 4 |
- (b) Length of time in present or most recent position in this organization:
- | | |
|---|---|
| Less than two months | 1 |
| Two months to one year | 2 |
| More than one year but less than five years | 3 |
| Five years or more | 4 |
- (c) Type of position:
- | | |
|---------------------------|---|
| Line | 1 |
| Staff | 2 |
| Other (specify) | 3 |
- (d) Primary function:
- | | |
|---------------------------|---|
| Planning | 1 |
| Operations | 2 |
| Other (specify) | 3 |
- (e) Level of responsibility:
- | | |
|--|---|
| Chief administrative officer | 1 |
| First level, e.g., associate director or
associate administrator | 2 |
| Second level, e.g., assistant director or
asst. administrator or adm. asst. | 3 |
| Middle management, department head | 4 |
- (f) Type of organization:
- | | |
|------------------------------|---|
| Hospital | 1 |
| Group of hospitals | 2 |
| Planning agency | 3 |
| Consultant | 4 |
| University | 5 |
| Other (specify) | 6 |

3. Characteristics of hospital. If you are not employed by a hospital or group of hospitals, skip to Question 4. If your duties are in one unit of a group of hospitals, answer for your particular hospital only.

- (a) Governance:
- | | |
|-----------------------|---|
| Proprietary | 1 |
| Voluntary | 2 |
| Government | 3 |
- (b) Scope of illnesses:
- | | |
|-------------------------------|---|
| Primarily general | 1 |
| Primarily specialty | 2 |
- (c) Duration of care:
- | | |
|--------------------------------|---|
| Primarily long term | 1 |
| Primarily short term | 2 |

3. Characteristics of hospital (Continued)

(d) Approximate number of beds:	
Under 50	1
51 - 100	2
101 - 150	3
151 - 200	4
201 - 300	5
301 - 400	6
401 - 500	7
501 - 600	8
Over 600	9
(e) Total annual operating budget:	
Under \$1 million	1
\$1,000,000 to \$4,999,999	2
\$5,000,000 to \$9,999,999	3
\$10,000,000 to \$19,999,999	4
\$20,000,000 to \$49,999,999	5
\$50 million and over	6
(f) Primary population served by hospital:	
Urban	1
Suburban	2
Rural	3
(g) Economic level of majority of patients:	
Above average	1
Average	2
Below average	3
(h) Proportion of total <u>out-patient</u> population made up of Blacks and Hispanics, including all ambulatory care services:	
Under 10%	1
10 - 19%	2
20 - 29%	3
30 - 39%	4
40 - 49%	5
50% or more	6
(i) Proportion of <u>in-patient</u> population made up of Blacks and Hispanics:	
Under 10%	1
10 - 19%	2
20 - 29%	3
30 - 39%	4
40 - 49%	5
50% or more	6
(j) Population size of municipality in which hospital is principally located:	
Rural (i.e., not in municipality)	1
Under 50,000	2
50,000 - 199,999	3
200,000 - 999,999	4
1 million or more	5

3. Characteristics of hospital (Continued)

(k) Type of neighborhood in which your hospital is principally located:

Industrial or commercial	1
Residential	2
Agricultural	3

4. Following is a list of some of the areas in which health care administrators make decisions. We would like to find out what kinds of important decisions are commonly made in each area. Therefore, for each category please give a brief description of one important decision you have made or helped to make in that area. If you have not made a decision in a specific area, please write "none."
(Please write legibly.)

Example #1: (Education programs) Decided to transfer hospital-based school of X-ray technology to local community college.

Example #2: Research Programs. Approved a recommendation to the Board of Trustees to start a program to determine covert drug usage among psychiatric in-patients.

- a Financing income :
- b Financing expenditures :
- c Community relations:
- d Governing body:
- e Health care delivery:
- f Administration, professional departments:
- g Administration, service departments:
- h Education programs:
- i Research programs:
- j Outside agencies, government and voluntary:
- k Medical staff relations:
- l Legal aspects and litigation:
- m Physical plant and equipment, including construction:
- n Shared services:
- o Quality control and evaluation:

5. Now considering the total amount of time you spend on decision-making, how much is spent on decisions, whether important or routine, in each of these areas? (Circle one number in each line across.)

Time spent:

	none	little	some	much	almost all
	1	2	3	4	5
a Financing income	1	2	3	4	5
b Financing expenditures	1	2	3	4	5
c Community relations	1	2	3	4	5
d Governing body	1	2	3	4	5
e Health care delivery	1	2	3	4	5
f Administration, professional departments	1	2	3	4	5
g Administration, service departments	1	2	3	4	5
h Education programs	1	2	3	4	5

5. Time Spent (Continued)	Time spent:						
	none (1)	little (2)	little (3)	some (4)	much (5)	much (6)	almost all (7)
(i) Research programs	1	2	3	4	5	6	7
(j) Outside agencies, govern- ment and voluntary	1	2	3	4	5	6	7
(k) Medical staff relations	1	2	3	4	5	6	7
(l) Legal aspects and litigation	1	2	3	4	5	6	7
(m) Physical plant and equip- ment, including construc- tion	1	2	3	4	5	6	7
(n) Shared services	1	2	3	4	5	6	7
(o) Quality control and evaluation	1	2	3	4	5	6	7

6. Another way of looking at your job is to consider the various administrative processes in which you may be involved. How much of your time is spent in each of the following activities?

	Time spent:						
	none (1)	little (2)	little (3)	some (4)	much (5)	much (6)	almost all (7)
(a) Planning (determining goals, policies, and courses of action; work scheduling, budgeting, setting up pro- cedures, preparing agendas, programming)	1	2	3	4	5	6	7
(b) Investigating (collecting and preparing information, usually in the form of records, reports, and accounts; inventorying, measuring output, preparing financial statements, record keeping, performing research, job analysis)	1	2	3	4	5	6	7
(c) Coordinating (exchanging information with people, other than subordinates, in the organization in order to relate and adjust pro- grams; advising other depart- ments, expediting, liaison with other managers, arranging meetings, informing superiors, seeking other departments' cooperation)	1	2	3	4	5	6	7

6. Time Spent (Continued)

Time spent:

		none	little	some	much	almost		
		(1)	(2)	(3)	(4)	(5)	(6)	(7)
(d)	Evaluating (assessment and appraisal of proposals or of reported or observed performance; employee appraisals, judging financial reports, approving requests, judging proposals and suggestions, reviewing quality of care)	1	2	3	4	5	6	7
(e)	Supervising (directing, leading, and developing subordinates; counseling and training subordinates, explaining work rules, assigning work, disciplining, handling complaints of subordinates)	1	2	3	4	5	6	7
(f)	Staffing (maintaining the work force; employment interviewing, selecting, placing, promoting and transferring employees)	1	2	3	4	5	6	7
(g)	Negotiating (purchasing or contracting for goods or services; contacting and dealing with suppliers, collective bargaining)	1	2	3	4	5	6	7
(h)	Representing (advancing general organizational interests through memberships, speeches, consultation, and contacts with individuals or groups outside the organization; public speeches, community drives, news releases, attending conventions)	1	2	3	4	5	6	7
(i)	Educating (active participation in teaching)	1	2	3	4	5	6	7
(j)	Developing a constituency (obtaining the support of individuals and groups, inside and outside the organization; doing favors, selling ideas)	1	2	3	4	5	6	7

7. Now please estimate the importance to your institution of the decisions you make in each area.

Importance:

	none (1)	little (2)	some (3)	much (4)	utmost (5)
(a) Financing (income)	1	2	3	4	5
(b) Financing (expenditures)	1	2	3	4	5
(c) Community relations	1	2	3	4	5
(d) Governing body	1	2	3	4	5
(e) Health care delivery	1	2	3	4	5
(f) Administration, professional departments	1	2	3	4	5
(g) Administration, service departments	1	2	3	4	5
(h) Education programs	1	2	3	4	5
(i) Research programs	1	2	3	4	5
(j) Outside agencies, government and voluntary	1	2	3	4	5
(k) Medical staff relations	1	2	3	4	5
(l) Legal aspects and litigation	1	2	3	4	5
(m) Physical plant and equipment, including construction	1	2	3	4	5
(n) Shared services	1	2	3	4	5
(o) Quality control and evaluation	1	2	3	4	5

8. What is the importance to your institution of your activities in each of these areas? (See Question 6 for detailed definitions of the areas.)

Importance:

	none (1)	little (2)	some (3)	much (4)	utmost (5)
(a) Planning	1	2	3	4	5
(b) Investigating	1	2	3	4	5
(c) Coordinating	1	2	3	4	5
(d) Evaluating	1	2	3	4	5
(e) Supervising	1	2	3	4	5
(f) Staffing	1	2	3	4	5
(g) Negotiating	1	2	3	4	5
(h) Representing	1	2	3	4	5
(i) Educating	1	2	3	4	5
(j) Developing a constituency	1	2	3	4	5

9. Please list, in order of importance, the five most pressing problems which you have had to face as an administrator during the past year. These problems need not be related to any of the previous questions.

- (a) Most important problem:
- (b) _____
- (c) _____
- (d) _____
- (e) _____

10. Following is one way of defining levels of responsibility for major decisions:

- (1) No responsibility in this area
- (2) Information gathering without recommendation
- (3) Making recommendations, with or without information gathering
- (4) Making recommendations and organizing the decision-making process
- (5) Making decisions subject to review
- (6) Making final decisions

For each of the specific areas below, please indicate your level of responsibility for the major decisions made in that area. (Circle one number in each line across.)

Responsibility level:

	none (1)	info (2)	recom (3)	rec., org. (4)	de- cide (5)	final (6)
(a) Financing (income)	1	2	3	4	5	6
(b) Financing (expenditures)	1	2	3	4	5	6
(c) Community relations	1	2	3	4	5	6
(d) Governing body	1	2	3	4	5	6
(e) Health care delivery	1	2	3	4	5	6
(f) Administration, professional departments	1	2	3	4	5	6
(g) Administration, service departments	1	2	3	4	5	6
(h) Education programs	1	2	3	4	5	6
(i) Research programs	1	2	3	4	5	6
(j) Outside agencies, government and voluntary	1	2	3	4	5	6
(k) Medical staff relations	1	2	3	4	5	6
(l) Legal aspects and litigation	1	2	3	4	5	6
(m) Physical plant and equipment, including construction	1	2	3	4	5	6
(n) Shared services	1	2	3	4	5	6
(o) Quality control and evaluation	1	2	3	4	5	6
(p) Planning	1	2	3	4	5	6
(q) Investigating	1	2	3	4	5	6
(r) Coordinating	1	2	3	4	5	6
(s) Evaluating	1	2	3	4	5	6
(t) Staffing	1	2	3	4	5	6
(u) Negotiating	1	2	3	4	5	6
(v) Representing	1	2	3	4	5	6

11. In addition to routine problems and decisions, many administrators spend some of their time on special projects that may take a few weeks or months, or even years. If you work this way, briefly describe three of your most recent projects.

(a) _____
 (b) _____
 (c) _____

12. In recent years, a number of new management procedures and techniques have been employed by hospital administrators. For each of the techniques listed below, we would like to know the degree to which you are personally involved in their use. The levels of possible involvement include:

- (1) Not frequently used at our facility
 (2) Not frequently used at our facility, but I am investigating it for possible future use.
 (3) In use at our facility but I have no involvement with it.
 (4) Use output or provide input but administration and technical work done by others.
 (5) Personally involved with administration but required technical work done by others.
 (6) Personally involved with administration and do required technical work myself.

Involvement levels:

	not used (1)	in- vest. (2)	not pers. (3)	use (4)	ad- min. (5)	adm. & tech. (6)
(a) Operations Research Techniques (e.g., linear programming) for scheduling personnel	1	2	3	4	5	6
(b) Operations Research Techniques for scheduling facilities usage	1	2	3	4	5	6
(c) Formal performance appraisal system for professional staff	1	2	3	4	5	6
(d) Electronic data processing (EDP) for management of financial records	1	2	3	4	5	6
(e) EDP for clinical programs and research	1	2	3	4	5	6
(f) EDP for management	1	2	3	4	5	6
(g) Planned Program Budgeting (or related system)	1	2	3	4	5	6
(h) Use of social science research	1	2	3	4	5	6

13. (a) How much impact do you feel that your decisions and activities have had on the delivery of health care by your institution?

None	1
Very little	2
Some	3
Significant impact	4
A great deal	5
Decisive impact	6

- (b) Please explain briefly why you feel you have or have not had impact.
-
-

14. Administrators have formal decision-making authority in some areas. They also have other ways of influencing important decisions. One of these is to control the chain of events resulting in a decision by deciding who should be involved in a particular decision, controlling the flow of information, bringing certain individuals or groups together, and the like. Which of these gives you more influence on the important decisions in your institution, your formal authority or your control over the organizational processes resulting in the decisions?

Formal decision-making authority	1
Control over organizational processes	2

15. How much influence over important decisions do you derive from each of these potential sources of influence?

	Importance in influencing decisions:				
	none	little	some	much	great
	(1)	(2)	(3)	(4)	(5)
(a) Influencing the flow of information to individuals and groups	1	2	3	4	5
(b) Influencing what is perceived to be a "problem" (defining the problem)	1	2	3	4	5
(c) Controlling the procedures by which a decision is made (e.g., by deciding who should be involved in a particular decision)	1	2	3	4	5
(d) Information gathering	1	2	3	4	5
(e) Using control over physical resources to create alliances, gain support	1	2	3	4	5

16. How much emphasis do you feel should be placed on each of the following areas in the Columbia Program in Hospital Administration?

		Emphasis:						maxi- mum
		none (1)	little (2)	some (3)	some (4)	much (5)	much (6)	(7)
(a)	Financing (income)	1	2	3	4	5	6	7
(b)	Financing (expendi- tures)	1	2	3	4	5	6	7
(c)	Community relations	1	2	3	4	5	6	7
(d)	Governing body	1	2	3	4	5	6	7
(e)	Health care delivery	1	2	3	4	5	6	7
(f)	Administration, pro- fessional depart- ments	1	2	3	4	5	6	7
(g)	Administration, ser- vice departments	1	2	3	4	5	6	7
(h)	Education programs	1	2	3	4	5	6	7
(i)	Research programs	1	2	3	4	5	6	7
(j)	Outside agencies, government and voluntary	1	2	3	4	5	6	7
(k)	Medical staff rela- tions	1	2	3	4	5	6	7
(l)	Legal aspects and litigation	1	2	3	4	5	6	7
(m)	Physical plant and equipment	1	2	3	4	5	6	7
(n)	Shared services	1	2	3	4	5	6	7
(o)	Quality control and evaluation	1	2	3	4	5	6	7
(p)	Planning	1	2	3	4	5	6	7
(q)	Investigating	1	2	3	4	5	6	7
(r)	Coordinating	1	2	3	4	5	6	7
(s)	Evaluating	1	2	3	4	5	6	7
(t)	Supervising	1	2	3	4	5	6	7
(u)	Staffing	1	2	3	4	5	6	7
(v)	Negotiating	1	2	3	4	5	6	7
(w)	Representing	1	2	3	4	5	6	7
(x)	Educating	1	2	3	4	5	6	7
(y)	Developing a consti- tuency	1	2	3	4	5	6	7